

I claim:

1. An apparatus for use in a building system, the apparatus comprising:
at least one microelectromechanical (MEMs) sensor device operable to generate a process value;
a processing circuit operable convert the process value to an output digital signal configured to be communicated to another element of a building automation system, the building automation system including one or more devices that are operable to generate a control output based on set point information and process value information from one or more sensors; and
wherein the at least one MEMs sensor device and the processing circuit are integrated onto a first substrate.
2. The apparatus of claim 1 wherein the processing circuit includes a microelectronics A/D converter, the microelectronics A/D converter operable to receive the process value from the at least one MEMs sensor device and generate digital sensor signal therefrom.
3. The apparatus of claim 1 wherein the output digital signal is representative of the process value.
4. The apparatus of claim 1 wherein the processing circuit is further operable to generate a control output based on the set point information and the process

value information from the at least one MEMs sensor device, and wherein the output digital signal is representative of the control output.

5. The apparatus of claim 1 wherein the at least one MEMs sensor device includes a plurality of MEMs sensor devices.
6. The apparatus of claim 1 further comprising a battery secured to the first substrate.
7. The apparatus of claim 1 wherein the first substrate is a semiconductor substrate.
8. The apparatus of claim 6 wherein the battery further comprises a lithium ion battery layer.
9. The apparatus of claim 8 further comprising a power management circuit operably coupled to the lithium ion battery layer.
10. The apparatus of claim 8 further comprising a second substrate, and wherein the lithium ion battery layer is disposed between the first substrate and the second substrate.

11. The apparatus of claim 1 further comprising an RF communication circuit operably coupled to the processing circuit.
12. The apparatus of claim 1 further comprising an EEPROM operably coupled to the processing circuit.
13. An arrangement for use in a building system, comprising:
 - a plurality of sensor modules, each sensor module include at least one microelectromechanical (MEMs) sensor device, each sensor module operable to obtain at least one value representative of a measurable quantity in a building; and
 - a plurality of controllers, each controller operably connected to receive sensor information representative of at least one value obtained by at least one MEMs sensor device, each controller configured to generate a control output based on the sensor information and set point information, the control output configured to cause an actuator to effect change to the measurable quantity.
14. The arrangement of claim 13 wherein at least one of the MEMs sensor devices and at least one controller is formed on single substrate.
15. The arrangement of claim 13 wherein at least one sensor module further comprises a plurality of MEMs sensor devices.

16. The arrangement of claim 13 wherein at least one sensor module further comprises a microelectronics A/D converter, the microelectronics A/D converter operable to receive the at least one value from the at least one MEMs sensor device and generate digital sensor signal therefrom.
17. A method, comprising:
 - obtaining from a microelectromechanical (MEMs) sensor device at least one value representative of a measurable quantity in a building;
 - generating a control output based on the at least one value and set point information, the control output configured to cause an actuator to effect change to the measurable quantity.
18. The method of claim 17, wherein the set point information includes a desired temperature value for at least a portion of the building.
19. The method of claim 17, further comprising providing the control control output to an actuator in a building comfort system.
20. The method of claim 17, further comprising communicating information representative of the at least one value to a controller using wireless communications, the controller operable to generate the control output.